

**VEHICLE REPAIR GRANT PROGRAM** - Repair assistance is available to current food stamp recipients whose vehicles fail inspection. Assistance of up to one half of the repair cost limit is available through this program. Information, Grant Applications and Instructions are available at Inspection Stations (see Technical Advisor in office).

### Questions to Ask When Choosing A Repair Shop

1. Has the Repair Technician had emissions training from the Arizona Department of Environmental Quality?
2. Is the Repair Technician certified by ASE (Automotive Service Excellence) in engine performance (A8) or advanced engine performance (L1)?
3. Does the repair shop use diagnostic instruments?

If the answer to most of these questions is **yes**, the Repair Technician can probably repair your vehicle sufficiently to pass the retest.

Please make sure the Repair Technician completes the Vehicle Repair Information on the back of the Vehicle Inspection Report and keep all receipts.

If your vehicle's engine has severe internal problems, please have your Repair Technician provide a full description of the problem and how the problem was diagnosed, and include an estimate for cost of repairs on the repair facility's invoice or receipt.

This test is the result of Federal law. You may wish to contact your Representative in Congress.



Arizona Department of Environmental Quality  
Vehicle Emissions Inspection Laboratory  
600 North 40th Street  
Phoenix, Arizona 85008  
(602) 207-7000

*The Arizona Department of Environmental Quality shall preserve, protect and enhance the environment and public health and shall be a leader in the development of public policy to maintain and improve the quality of Arizona's air, land and water resources.*

## Arizona Department of Environmental Quality Vehicle Inspection Program



### Failed Vehicle Information.

This Brochure Contains:

- What to do if your vehicle failed the emissions inspection.
- What to do if your vehicle failed the equipment inspection.
- What to do if your vehicle failed the evaporative system inspection.
- How to choose a dependable Repair Technician.
- Repair requirements, general diagnostics, warranty and repair assistance.

### Vehicles That Fail Inspection.

Because your vehicle failed its first inspection, it must be repaired and retested before registration. The repair form on the back of the Vehicle Inspection Report **must be completed**. Bring the completed and signed form when you return for a retest.

Vehicle registrations expire on the last day of the registration month. You will not have to pay a late penalty on your registration, provided:

- Your vehicle's first inspection was done **before** the registration expired **and**
- Your vehicle was repaired, retested and passed **and**
- The registration renewal is postmarked within 30 days of the first inspection.

### How Do I Get My Vehicle To Pass?

Repair requirements and general diagnostic information are in this brochure. For more information to assist your Repair Technician in diagnosing and repairing your vehicle, see the Technical Advisor in the inspection station office.

### How Much Do I Have To Spend On Repairs?

Maximum repair cost requirements for emissions failure depend on the age of your vehicle.

1980 Model Year or Newer	\$450.00
1975-1979	\$300.00
1974 or Older (effective Aug. 21, 1998)	\$200.00
Heavy Duty Diesel	\$500.00

These limits do not apply to equipment failures.

Rev. July 1998

### Repair Requirements And Filling Out The Required Vehicle Repair Information.

Under Arizona law, any vehicle failing its inspection must be repaired before it is retested and registered. The minimum repairs required are listed below. Give the Vehicle Inspection Report to your Repair Technician to fill out the Vehicle Repair Information Form on the back. All repairs **MUST** be recorded, and the completed form **MUST** be returned to qualify for a free retest.

#### GASOLINE VEHICLES:

**EMISSIONS REPAIRS:** The following instruments or equipment must be used: tachometer, timing light, or an engine analyzer or oscilloscope, and where specified by the manufacturer, an HC/CO NDIR analyzer to make final air/fuel adjustments. Final adjustments shall be made only after the vehicle engine is at normal operating temperature. All adjustments must be made to manufacturer's specifications.

Perform an emissions failure diagnosis. On computer controlled vehicles, pull up the on-board-diagnostics and record any trouble codes under Technician's Comments.

Inspect for a dirty or plugged air filter and stuck choke, and restricted air intake system. Replace and repair as needed.

Check dwell (or point gap) and basic timing according to manufacturer's specifications and adjust as needed.

Check for correct PCV valve for proper operation. Verify free flow through the PCV system passages and hoses. Repair and replace as needed.

Check for vacuum leaks at hoses, EGR, and vacuum-operated components. Check for improperly routed, or disconnected vacuum hoses. Repair and replace as needed.

Adjust idle speed and air/fuel mixture to manufacturer's specifications.

**Note:** If vehicle is powered by an alternate fuel (LPG or LNG) follow manufacturer's recommended adjustment procedure.

**After performing the above repairs, if the problem causing the emissions failure has not been corrected, and the maximum required repair cost has not been exceeded, then the following must be done:**

**CO (ONLY) Failures:** Check for overfueling due to:

- Canister purge system malfunction;
- Carburetor malfunction/adjustment (High float setting; leaking power valve; faulty, worn, or improper sized needles, seats, or jets);
- Throttle body or ported fuel injection system malfunction (Fuel injectors, fuel lines, fuel pressure, injection pump, injector timing);

- Engine/Fuel Control System (Computer) malfunction (System sensors, actuators, CPU);
- Improper engine coolant mix, improper or malfunction engine thermostat.

Replace and repair as needed.

**HC or HC and CO Failures:** Check for:

- Ignition system malfunction;
- Spark plug malfunction;
- Ignition wires (Faulty, open, crossed or disconnected);
- Distributor module malfunction;
- Distributor component malfunctions (Mechanical/vacuum advance, points, condenser, distributor cap, crossfire);
- Catalytic converter efficiency;
- Catalytic converter air supply;
- Vacuum leak causing lean misfire (Intake manifold, carburetor base gasket, EGR, vacuum operated components and vacuum fittings);

Replace and repair as needed.

**NOx Failures:** Check for:

- Removed, plugged or malfunctioning EGR system:
  - EGR Valve;
  - EGR exhaust gas ports, lines and passages;
  - EGR valve electrical/vacuum control circuitry and component and computer control;
- Abnormal engine operating temperature;
- Air management system malfunction;
- Lean air/fuel mixture;
- Catalytic converter efficiency;
- Over-advanced off-idle timing;

Replace and repair as needed.

#### EVAPORATIVE SYSTEM FAILURES:

**PRESSURE TEST FAILURES:** Check for leaking or disconnected vapor hoses, lines, fuel tank and accessories. Repair or replace as needed.

**GAS TANK CAP FAILURES:** Check for deterioration or damage to cap or seal surfaces. Replace as needed.

#### DIESEL VEHICLES:

Inspect for a dirty or plugged air filter, or a restricted air intake system. Replace and repair as needed.

Check fuel injection system timing according to manufacturer's specifications and adjust as needed.

Check for fuel injector fouling, leaking or mismatch. Repair and replace as needed.

Check fuel pump and air-fuel ratio control according to manufacturer's specifications and adjust as needed.

#### Warranty Information

**EXTENDED WARRANTY COVERAGE:** Owners of failing vehicles may be eligible for free emissions-related repairs if their vehicles are still covered by manufacturer's or extended warranty. Consult your Owner's Manual, Emissions Control Warranty Information pamphlet or your dealer for information on whether your vehicle has warranty coverage before making necessary repairs.

#### EQUIPMENT TEST FAILURES:

You must repair or replace any emission control devices that have been removed, defeated, altered or rendered inoperative. Repair or replacement of these devices **is not included** in the maximum repair cost limit.

##### FAILURE

Catalytic Converter

##### REQUIRED REPAIR

Repair connections or replace catalytic converter with new OEM\* or approved aftermarket parts.\*\*

Gas Cap

Repair or replace with new OEM\* or comparable aftermarket parts.

Operational Air Pump System

Repair or replace with new OEM\* or comparable aftermarket parts.

Positive Crankcase Ventilation System

Repair or replace valve with new OEM\* or comparable aftermarket parts. Replace hoses.

Evaporative Emissions Systems

Repair or replace canister/purge valve or system component with new OEM\* or comparable aftermarket parts.

\*Original Equipment Manufacture

\*\*See approved parts list.

**VEHICLE REPAIR GRANT PROGRAM** - Repair assistance is available to current food stamp recipients whose vehicles fail inspection. Assistance of up to one half of the repair cost limit is available through this program. Information, Grant Applications and Instructions are available at Inspection Stations (see Technical Advisor in office).

### Questions to Ask When Choosing A Repair Shop

1. Has the Repair Technician had emissions training from the Arizona Department of Environmental Quality?
2. Is the Repair Technician certified by ASE (Automotive Service Excellence) in engine performance (A8) or advanced engine performance (L1)?
3. Does the repair shop use diagnostic instruments?

If the answer to most of these questions is **yes**, the Repair Technician can probably repair your vehicle sufficiently to pass the retest.

Please make sure the Repair Technician completes the Vehicle Repair Information on the back of the Vehicle Inspection Report and keep all receipts.

If your vehicle's engine has severe internal problems, please have your Repair Technician provide a full description of the problem and how the problem was diagnosed, and include an estimate for cost of repairs on the repair facility's invoice or receipt.

This test is the result of Federal law. You may wish to contact your Representative in Congress.



Arizona Department of Environmental Quality  
Vehicle Emissions Inspection Laboratory  
600 North 40th Street  
Phoenix, Arizona 85008  
(602) 207-7000

*The Arizona Department of Environmental Quality shall preserve, protect and enhance the environment and public health and shall be a leader in the development of public policy to maintain and improve the quality of Arizona's air, land and water resources.*

## Arizona Department of Environmental Quality Vehicle Inspection Program



### Failed Vehicle Information.

This Brochure Contains:

- What to do if your vehicle failed the emissions inspection.
- What to do if your vehicle failed the equipment inspection.
- What to do if your vehicle failed the evaporative system inspection.
- How to choose a dependable Repair Technician.
- Repair requirements, general diagnostics, warranty and repair assistance.

### Vehicles That Fail Inspection.

Because your vehicle failed its first inspection, it must be repaired and retested before registration. The repair form on the back of the Vehicle Inspection Report **must be completed**. Bring the completed and signed form when you return for a retest.

Vehicle registrations expire on the last day of the registration month. You will not have to pay a late penalty on your registration, provided:

- Your vehicle's first inspection was done **before** the registration expired **and**
- Your vehicle was repaired, retested and passed **and**
- The registration renewal is postmarked within 30 days of the first inspection.

### How Do I Get My Vehicle To Pass?

Repair requirements and general diagnostic information are in this brochure. For more information to assist your Repair Technician in diagnosing and repairing your vehicle, see the Technical Advisor in the inspection station office.

### How Much Do I Have To Spend On Repairs?

Maximum repair cost requirements for emissions failure depend on the age of your vehicle.

1980 Model Year or Newer	\$450.00
1975-1979	\$300.00
1974 or Older	\$200.00
Heavy Duty Diesel	\$500.00

These limits do not apply to equipment failures.

Rev. Aug. 1998